

Work Order ID 155137***155137***

Page 1

Monday, January 09, 2017 11:28:59 AM

Item ID: D350-604-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: URF 16-567 Stop ***NS2***
Item Name: Rear Locker Extender
Start Date: 6/1/2017 Start Qty: 1.00 ***1*** Cust Item ID:
Required Date: 7/3/2017 Req'd Qty: 1.00 ***1*** Customer:
Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **JAN 12 2017** Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr								
D2273	LUR M 17/01/12								
D350-604-041	CUR 9 12/1/13								

100	Document Control	0.00							
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100

DC

Doc.Control -USB or Paperwork

Memo

Photocopy bluefile and create labels per PPP D350-604-041

CHG009

CHG010 **DAS 21 9-89** **see attachment****DAS 28 9-89****JUL 03 2017**

110	PURCHASING	0.00							
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110

Purchasing

Purchasing

MemoIssue P/O: **34973**

Description: D350-604-041 Rear locker extender.

Manufacture as per dwg D2273

Supplier: FDC Composites Inc.

Certification of Conformity and process sheet required.

***EXTREME CARE MUST BE TAKEN TO PROTECT THE SURFACES OF
THE REAR LOCKER. THE SURFACES MUST BE SMOOTH AND FREE
FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR
DENTS.***

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

DAS 13 9-89**JAN 17 2017**

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="width:15%;">Skid-tube ☐</td> <td style="width:15%;">Cross tube ☐</td> <td style="width:15%;">Water Jet ☐</td> <td style="width:15%;">Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																							
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Work Order ID 155137

Monday, January 09, 2017 11:28:59 AM

155137

Page 2

Item ID: D350-604-041

Accept

N900040100Setup Start ***NS1***

Revision ID: URF 16-567

Stop ***NS2***

Item Name: Rear Locker Extender

Start Date: 6/1/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/3/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120	Receive & Inspect for Damage & Mat'l Certs	0.00							
120	Packaging								
Packaging	Memo	0.00							
Packaging	Ensure a copy of Certification of Conformity and process sheet from Carbon-by-Design is attached.								
	DO NOT STACK REAR LOCKERS OR ANYTHING ON THEM								
130	QC6- Inspect dimensions to drawing	0.00							
130									
QC	Memo	0.00							
Quality Control	Check hole locations to template. DT 8824 Check process sheet and audit.								
140		0.00							
140									
Small Fab	Memo	0.05							
Small Fab	1- INSTALL DECALS AS PER DWG								

DAS
28
9-89

JUL 03 2017

DAS
9
9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
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Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____							
Misidentified ☐	Past Due ☐								

Monday, January 09, 2017 11:28:59 AM

155137

Page 3

Accept

N900040100

```

Setup  Start  *NS1*
          Stop   *NS2*

```

Start Date:	6/1/2017	Start Qty:	1.00	*1*
Required Date:	7/3/2017	Req'd Qty:	1.00	*1*

Cust Item ID:
Customer:

Reference:

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____
QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Run	Start	*NR1*
	Stop	*NR2*

[illegible]

JUL 03 2017

JUL 03 2017

DAS
28
9-89
JUL 03 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

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Misidentified ☐	Past Due ☐	OTHER :																							

Work Order ID 155137

Monday, January 09, 2017 11:28:59 AM

155137

Page 4

Item ID: D350-604-041

Accept

N900040100Setup Start ***NS1***

Revision ID: URF 16-567

Stop ***NS2***

Item Name: Rear Locker Extender

Start Date: 6/1/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/3/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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160

0.00

160

Packaging

DAS
27
9-89

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D350-604-041

Location: Fg 105
PPP Rev: _____

JUL 03 2017

170

QC21- Final Inspection - Work Order Release

0.00

170

QC

Memo

0.02

Quality Control

17/7/49DAS
21
9-89

JUL 03 2017

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
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Root Cause				FAULT CATEGORY							
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Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____							
Misidentified	☐	Past Due	☐								

Monday, January 09, 2017 11:29:02 AM

Page 1

155137

D350-604-041

Required Date: 7/3/2017

Required Qty: 1.00

Comments: IPP Rev:Q03.12.01ReformatKJ/RF IPP REV:R
12.02.07 AS PER ECN12-521 DD verf:JLM IPP REV:S 12.04.04
AS PER DWG REV.B DD VERF:EC IPP REV:T 13.09.12 as per
CHG006/ECN13-616 DDVERF:JLM IPP REV:U 14.05.28 as per
chg008/ecn14-563 DD verf:JLM IPP REV:V 15.03.13 remove cam lock and
washerDD verf:JLM IPP REV:W 15.03.25 ECN15-545 DD VERF:JLM

[illegible]

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval 	
Description Work Order Deviation		Disposition			
				Completed By _____	
				Lead hand / Supervisor Approval Verification _____	
				QC / QA Coordinator Approval _____	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐	No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐	Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐	Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐
OTHER : _____					

Picklist Print

Monday, January 09, 2017 11:29:02 AM

Page 2

Work Order ID: 155137

155137

Parent Item: D350-604-041

D350-604-041

Parent Item Name: Rear Locker Extender

Start Date: 6/1/2017

Required Date: 7/3/2017

Start Qty: 1.00

Required Qty: 1.00

D5062-041

Manufactured

No

155

Each

16.0000

1

1

D5062-041

Bracket Assembly

DAS
27
9-89

DAS
28
9-89

Location

Loc Qty

Loc Code

ST147

16

145920

16

1

JUL 03 2017

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation		Disposition			
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

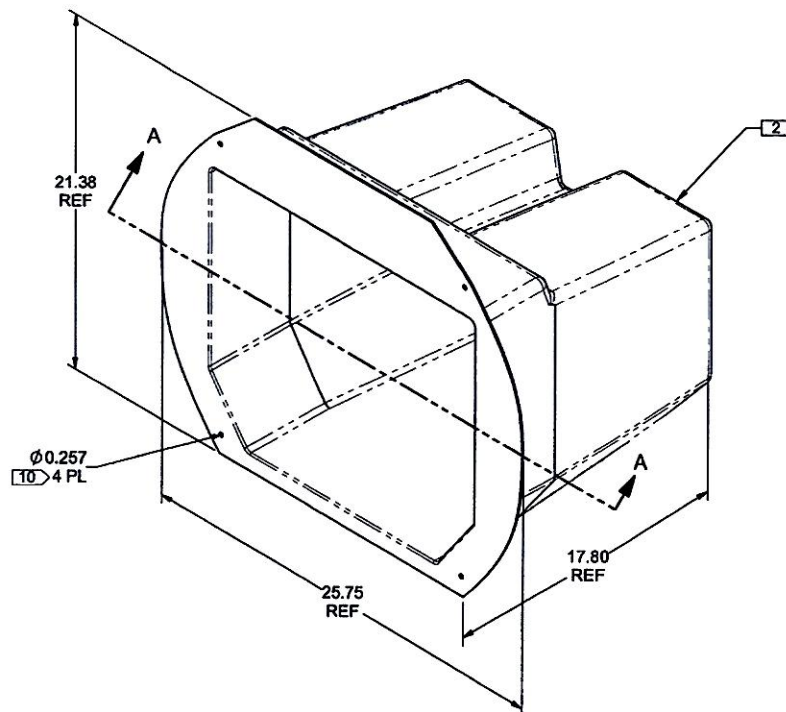
SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 155137 MJS
1701-12

TABLE 1

POSITION	MATERIALS
1	TOOL SURFACE
2	GELCOAT
3	3/4 oz CHOPPED STRAND MAT
4	7725 FIBER GLASS
5	7725 FIBER GLASS
9	7725 FIBER GLASS
10	PRIMER

TABLE 2

POSITION	MATERIALS
1	TOOL SURFACE
2	GELCOAT
3	3/4 oz CHOPPED STRAND MAT
4	7725 FIBER GLASS
5	7725 FIBER GLASS
6	7725 FIBER GLASS
7	7725 FIBER GLASS
8	7725 FIBER GLASS
9	7725 FIBER GLASS
10	PRIMER



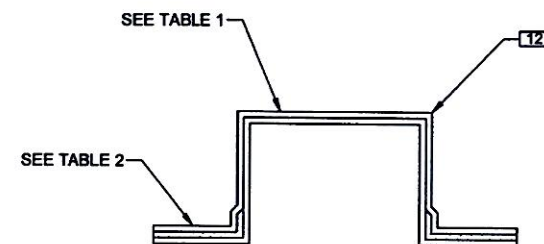
D2273 REAR LOCKER EXTENDER

TABLE 3

MATERIAL USED	DESCRIPTION
GELCOAT	55X3535 WHITE GELCOAT
FIBER GLASS MAT	OWENS CORNING 3/4 oz CHOPPED STRAND MAT
FIBER GLASS CLOTH	HEXCEL 7725 FIBER GLASS
RESIN SYSTEM	DION 7704
PRIMER	TEMPO 4500-PB-23G (GREEN)

NOTES:

- 1) MATERIAL: SEE TABLE 3
- 2) FINISH: SEE TABLES 1, 2, & 3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 5.5- 7.5 lbs
- 8) LAMINATE PER DART QSI 006. LAMINATION SCHEDULE PER THIS DRAWING
- 9) LAYUP USING DT9871 MOLD. WET LAYUP WITH BAG/VACUUM
- 10) TRIM & DRILL PER DT9905. OPEN HOLES TO Ø0.257
- 11) CONSTRUCTION: SEE TABLES 1 & 2
- 12) MATTE TO HOLD DOWN CORNERS AS REQUIRED



SECTION A-A

M	CHANGE GELCOAT TO 55X3535 WHITE GELCOAT, REMOVE PAINT FINISH OPTION (NOTE 2)	DB	16.05.19
L	ADD PAINT OPTION (NCR 15-5408)	CP	15.10.19
K	LAYUP AND MATL PER FDC COMPOSITES PROCESS	CP	15.03.12
J	CHANGED GELCOAT TO 4314-001 DURA FR WHITE	ML	13.12.10
I	CHANGE GELCOAT TO POLYCOR 2330PAWK745	SFM	13.08.13
H	CHANGE MATERIAL & MANUFACTURING PROCESS	DC	13.03.15
G	ADD MANUFACTURING OPTION B, ZN B5-1	DC	12.08.08
F	PRIMER LE 3404-S/LE 1175-S WAS 1144-S, ZN A6-1	DC	12.02.27
E	CHANGED SURFACE FINISH FROM 944W005 GELCOAT TO 2330PAWK745 GELCOAT, ZN A7-1. UPDATED DWG TO CURRENT STANDARDS.	DC	12.02.02
D	REMOVE EPOCAST, ADD SURFACE FINISH	CP	02.04.01
C	CLARIFY MATERIAL, LAYUP, AND TOOLING	RF	02.01.30
B	RE-DRAWN	MM	96.05.27
REV.	DESCRIPTION	BY	DATE

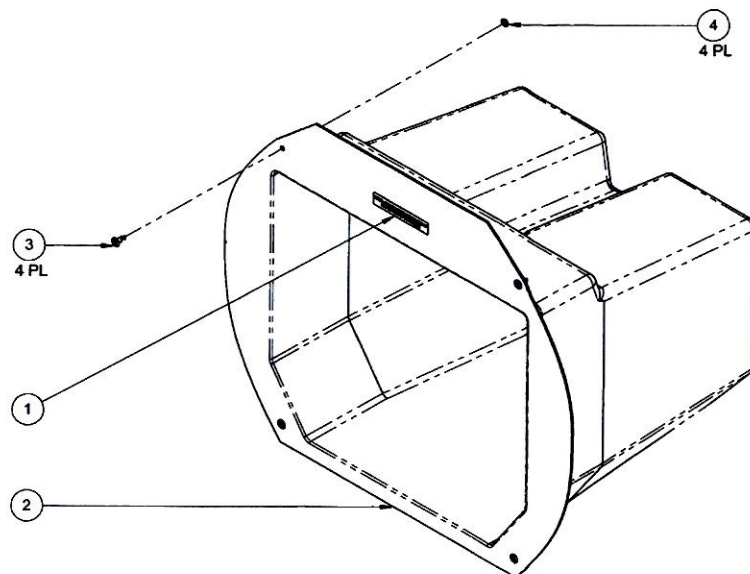
DESIGN	JB	DART AEROSPACE LTD	
DRAWN	DB	HAWKESBURY, ONTARIO, CANADA	
CHECKED	ML	DRAWING NO.	REV. M
MFG. APPR.	DD	D2273	SHEET 1 OF 1
APPROVED	WM	TITLE	SCALE
DE APPR.	DS	350 REAR LOCKER EXTENDER	NTS
DATE	16.05.19		

RELEASED
2017-01-11
EWN 17-501

APPROVED

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ITEM NO.	QTY.	PART NUMBER	DESCRIPTION
	X	D350-604-041	REAR LOCKER EXTENDER ASSEMBLY
1	1	D2268	PLACARD
2	1	D2273	REAR LOCKER EXTENDER
3	4	2600-6	CAMLOCK STUD
4	4	2600-LW	RETAINING WASHER



D350-604-041 REAR LOCKER EXTENDER ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 5.5 to 7.5 lbs
- 8) INSTALL D2268 PLACARD IN LOCATION SHOWN, CENTERED ON FLANGE

C	REMOVE D2728-1, D2729-1 DECALS (ZN C5-1) REVISED RELATED NOTES, UPDATED PART WEIGHT	ML	13.12.16
B	INCORPORATE DSI 9470 (ZN D7-1), UPDATE DWG TO CURRENT STANDARDS. ADD D2728-1 PLACARD AND ORIENTATION NOTE (ZN C3-1), ADD D2729-1 (ZN C5-1)	DC	12.02.07
A	NEW ISSUE	CP	02.04.01
REV.	DESCRIPTION	BY	DATE
DESIGN	DW	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	ML		
CHECKED	AP	DRAWING NO. D350-604-041	
MFG. APPR.	JLM	REV. C	
APPROVED	MP	TITLE RLE ASSY	
DE APPR.	DS	SCALE NTS	
DATE	14.01.02	SHEET 1 OF 1	

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Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34973**

Purchase Order Date 1/17/2017 9:02:37 AM
PO Print Date 1/31/2017

Page Number 2 of 3

der From : VC-FDC01
FDC COMPOSITES INC.
45 CHEMIN DE L'AEROPORT
LOCAL 26
ST-JEAN-SUR-RICHELIEU, QUEBEC J3B 7B5

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 450-357-1344 ext303
Ship To Contact
Ship To Phone
Ship Via: Journey Freight collect
Ship Acct:

Buyer
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency CAD
FOB Destination-Collect

3	D350-604-041P	Rear Locker Extender	6/5/2017 Yes 6/5/2017	1.00 Each	\$705.00	\$705.00
---	---------------	----------------------	-----------------------------	--------------	----------	----------

AS PER DWG D2273 REV. M / D350-604-041 REV. C
B155135
PLEASE NOTE REARLOCKER UNDER NEW REV. M

Line Total: \$705.00

4	D350-604-041P	Rear Locker Extender	6/5/2017 Yes 6/5/2017	1.00 Each	\$705.00	\$705.00
---	---------------	----------------------	-----------------------------	--------------	----------	----------

AS PER DWG D2273 REV. M / D350-604-041 REV. C
B155136
PLEASE NOTE REARLOCKER UNDER NEW REV. M

Line Total: \$705.00

5	D350-604-041P	Rear Locker Extender	6/5/2017 Yes 6/5/2017	1.00 Each	\$705.00	\$705.00
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AS PER DWG D2273 REV. M / D350-604-041 REV. C
B155137
PLEASE NOTE REARLOCKER UNDER NEW REV. M

DAS
9
9-89

SP17-6-23

PO Instructions: NOTE: NO BILLING PRIOR TO SHIPPING

Note:

1/31/2017

#135

FDC Composites inc.
45, Chemin de L'Aéroport
Local 26
Saint-Jean-sur-Richelieu (QC)
J3B 7B5
Tel.: 450 357-1344

Shipping Order

15/06/2017

Order : 2640
Reference : PO 34973/1-5

Customer: Dart

DART AEROSPACE
1270 Aberdeen Street
Hawksbury, ON
K6A 1K7

Ship To
DART AEROSPACE LTD
1270 Aberdeen Street
Hawksbury, ON
K6A 1K7
Tel.: 1 613 632-9577

Item No.	Description	Qty	Qty. Delivere	B/O Qty
D350-604-041P	REAR LOCKER EXTENDER PO item: 34973/1 Lot: 2017-02-22 As per DWG.D2273 Rev. M B155133	1		
D350-604-041P	REAR LOCKER EXTENDER PO item: 34973/2 Lot: 2017-02-27 As per DWG.D2273 Rev. M B155134	1		
D350-604-041P	REAR LOCKER EXTENDER PO item: 34973/3 Lot: 2017-03-02 As per DWG.D2273 Rev. M B155135	1		
D350-604-041P	REAR LOCKER EXTENDER PO item: 34973/4 Lot: 2017-03-06 As per DWG.D2273 Rev. M B155136	1		
D350-604-041P	REAR LOCKER EXTENDER PO item: 34973/5 Lot: 2017-03-08 As per DWG.D2273 Rev. M B155137	1		

DAS
9
9-89

Shipping : _____
Package No : _____
Merchandise Received: _____

Ref. : _____



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CERTIFICATE of CONFORMITY

Customer Name: Dart Aerospace.

Customer P/O Number: 34973

Revision: NC

<u>PO Item</u>	<u>Qty</u>	<u>Part number</u>	<u>Dwg number</u>	<u>Description</u>	<u>Dart ID</u>	<u>FDC ID</u>	<u>Lot</u>
1	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155133	DAE001-111	2017-02-22
2	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155134	DAE001-118	2017-02-27
3	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155135	DAE001-126	2017-03-02
4	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155136	DAE001-128	2017-03-06
5	1	D350-604-041P	D2273 Rev M	350 Rear Locker Extender	B155137	DAE001-135	2017-03-08

I hereby certify that the workmanship, material and the processes used in the manufacture of the above part(s) supplied are in accordance with the requirements of the applicable Purchase Order.

Signature: Marjorie G
Marjorie Geoffrion, Quality Inspector

Date: 2017-06-16



# LOT	2017-02-28
# SÉRIE(ID)	DAE001-35

Nom de Gamme :	Rear locker extender – DART
# de Gamme (et rev.) :	DAE001 Rev. E
Nom pièce – Client :	350 Rear locker extender – DART AEROSPACE
# de Dessins (et rev.) :	D2273 Rev. M

ID: B155137/5

Fiche suiveuse

[10-50]	PRÉPARATION	Moule, Espace de travail, Matières premières, Consommables	#23 07 MAR. 2017
[60-80]	FINITION	Appliquer Gelcoat, Inspecter	#3 08 MAR. 2017
[90-140]	MOULAGE	Laminer, Démouler, Inspecter	#26 08 MAR. 2017
[150-190]	USINAGE	Percer, Découper, Ébavurer, Inspecter, Sabler	#30 9 MAR. 2017
[200-230]	FINITION	Primer, Inspection	#3 28 MAR. 2017
240	EXPÉDITION	Emballer, Expédier	#8 15 JUN 2017

Gamme préparée par :	Guillaume G.Jasmin
Gamme vérifiée par :	Francis Lavigne-Larente
Gamme approuvée par :	Maxime Gagné
Date d'émission :	2015-01-14

Gamme révisé préparée par :	Pascal Séguin
Gamme révisé vérifiée par :	Karim Malihi
Gamme révisé approuvée par :	Michel Morin
Date de révision :	2017-02-22

Informations à remplir :

Cases grises vides

Inspection :

Approbation Qualité
Avant de produire le CofC, toutes les étapes et les informations requises des gammes subséquentes reliées à ce produit ont été complétées et remplies



Matières premières

Résine	1028612	2017-05-17	Dion 7704
Norox (Résine)	41049	2017-08-01	MEKP-9
Norox (Gelcoat)	41049	2017-08-01	MEKP-9
Gelcoat blanc	702-407	2017-08-28	55X-3535
Mat ¾ oz/pi²	15051100174-1	N/A	¾ oz Chopped Strand Mat (Owens Corning Or Equivalent)
Fibre de verre 7725	4451515	N/A	Hexcel 7725 Fiber Glass
Apprêt (Primer) (Vert)	18584	2018-12-31	Tempo 4500-PB-23G (Vert)
Durcisseur pour apprêt (hardener)	18317	2018-05-01	Tempo 4500-C-23
Attache mécanique (Camloc)	508980	N/A	2600-5
Rondelle de retenue pour Camloc	1745658	N/A	2600-LW

Moule : MOU306 ou MOU309	FMS	Sarrau
Pompe à vide	55NC	Lunettes de sécurité
Jig de découpe et perçage CNC 5 axes	Peel ply	Soulier de protection
Jig de finition et d'inspection : GAB355	Film perforé	Gants
	Bleeder breather	Masques à cartouches
Pince pour installer Camloc : OUT951	Bag big blue	
Outil pour installer rondelle de retenue : OUT952	Ruban scellant (Dum Dum)	

Annexe 1
Formulaire de résine (RES-DAE001)

MPS-300-93-31-007-NC	Démoulage 55NC
MPS-300-93-31-058-A	Composite part inspection
MPS-300-93-31-020-B	Edge finish after trimming
MPS-300-93-31-097-NC	Epoxy - Polyamide primer
MPS-300-93-31-084-NC	Protection et entreposage des pièces

Suivi des révisions

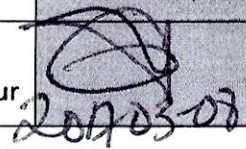
A	Révision d'une OP inspection, Ajout nouveaux moules et retrait d'un type de primer	2015-03-04	Guillaume G.Jasmin
B	Ajout des conformateurs, du gabarit GAB355, de l'installation des camlocs, inspection du poids et identification finale	2015-03-25	Guillaume G.Jasmin
C	Mise à jour de la case approbation qualité page 1	2015-04-02	Guillaume G.Jasmin
E	Changement de gelcoat, modification du format de la gamme, révision complète de la gamme	2017-02-22	Pascal Séguin

PRÉPARATION

10	Remplir les informations requises sur la première page (cases gris pâle) - Demander au coordonnateur de production (ID) - Inscrire les heures et les dates d'entrée et de sortie de département		02 MAR 2017 #23	E : R :
20	Découper la fibre et les périssables (Peel ply, sac étanche...) selon l'ANNEXE 1 - ACHEMINER et REMPLIR la section « Matière premières » pour : - Fibre de verre 7725 - Mat ¾ oz	Annexe 1	08 MAR 2017 #23 08 MAR 2017	E : R :
30	Préparer la résine selon RES-DAE001 (Gamme de formulation de résine) ACHEMINER et REMPLIR la section « Matière premières » pour : - Résine - Norox	RES- DAE001	#28 8 MAR 2017	E : R :
40	Préparer le moule - Cochez le moule utilisé : MOU306 ☐ / MOU309 ☒ ☒ Nettoyer et traiter le moule ☒ Poser le Masking tape Si nécessaire, traiter le moule au 55NC Faire le test de pelage, s'il ne passe pas, appliquer une couche de 55NC et refaire le test.	Annexe 1 MOU306 ou MOU309 MPS-300- 93-31-007	#19 07 MAR 2017 #26 07 MAR 2017	E : R :

50	<u>Préparer l'espace de travail (pendant l'application du gelcoat)</u>				#23 08 MAR. 2017	E: R:
	☒ Vérifier et préparer la pompe ☒ Préparer et distribuer les outils ☒ Protéger l'environnement de travail (tables, plancher, etc.) ☒ Vêtir l'équipement de protection personnel ☒ Partir la ventilation ☒ Vérifier l'ordre et la présence de tous les plis de fibre et des morceaux de noyau dans le sac					
	Position	Matériel	Initial employé			
	10F	¾ oz Chopped strand MAT	ny			
	20F	7725 Fibre de verre	ny			
	30F	7725 Fibre de verre	ny			
	40R	7725 Fibre de verre	ny			
	50R	7725 Fibre de verre	ny			
	60R	7725 Fibre de verre	ny			
70F	7725 Fibre de verre	ny				

FINITION

60	<u>ACHEMINER et REMPLIR la section « Matière premières » pour :</u> • Gelcoat blanc 55X-3535 • Norox MEKP-9		#28 8 MAR. 2017	E: R:
70	<u>Appliquer le Gelcoat (18 - 22 mils)</u> Heure d'application 0.8 h 20 min	Annexe 1	#3 08 MAR. 2017	E: R:
80	<u>Vérification de l'épaisseur du gelcoat lorsqu'encore humide</u>	Gauge d'épaisseur	 2017-03-08	E: R:

MOULAGE

90	Préparation de la pièce à laminer (feuille) Vérifier la température du gelcoat : uniforme et appropriée. Vérifier la température pour que la pièce puisse être laminée (la pièce doit être immergée à 40°C +/- 1°C)																			
	LAMINER <table border="1"> <thead> <tr> <th>Position</th> <th>Matériel</th> </tr> </thead> <tbody> <tr> <td>10F</td> <td>¾ oz Chopped strand MAT</td> </tr> <tr> <td>20F</td> <td>7725 Fibre de verre</td> </tr> <tr> <td>30F</td> <td>7725 Fibre de verre</td> </tr> <tr> <td>40R</td> <td>7725 Fibre de verre</td> </tr> <tr> <td>50R</td> <td>7725 Fibre de verre</td> </tr> <tr> <td>60R</td> <td>7725 Fibre de verre</td> </tr> <tr> <td>70F</td> <td>7725 Fibre de verre</td> </tr> </tbody> </table>	Position	Matériel	10F	¾ oz Chopped strand MAT	20F	7725 Fibre de verre	30F	7725 Fibre de verre	40R	7725 Fibre de verre	50R	7725 Fibre de verre	60R	7725 Fibre de verre	70F	7725 Fibre de verre		#23 08 MAR. 2017 #19 08 MAR. 2017	
Position	Matériel																			
10F	¾ oz Chopped strand MAT																			
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40R	7725 Fibre de verre																			
50R	7725 Fibre de verre																			
60R	7725 Fibre de verre																			
70F	7725 Fibre de verre																			
100	CONSOMMABLE <table border="1"> <thead> <tr> <th></th> <th></th> </tr> </thead> <tbody> <tr> <td>10F</td> <td>Pool Ply</td> </tr> <tr> <td>20F</td> <td>Release film non perforé</td> </tr> <tr> <td>30F</td> <td>Bleeder / Breather</td> </tr> <tr> <td>50F</td> <td>Bagging bleu</td> </tr> </tbody> </table> ☐ S'assurer que tous les plis dans le tableau ont été laminés ☐ S'assurer que tous les conformateurs (Qte 9) sont en place par-dessus le Bleeder/Breather <table border="1"> <tbody> <tr> <td>Heure début laminage</td> <td>8 h 45 min</td> </tr> <tr> <td>Heure mise sous-vide (sac scellé)</td> <td>9 h 45 min</td> </tr> <tr> <td>Intensité du vide (25 inHg)</td> <td>09</td> </tr> </tbody> </table>			10F	Pool Ply	20F	Release film non perforé	30F	Bleeder / Breather	50F	Bagging bleu	Heure début laminage	8 h 45 min	Heure mise sous-vide (sac scellé)	9 h 45 min	Intensité du vide (25 inHg)	09	Annexe 1 GAB356 à GAB364 (Qte 9)	#21 08 MAR. 2017 #26 08 MAR. 2017	E: R:
10F	Pool Ply																			
20F	Release film non perforé																			
30F	Bleeder / Breather																			
50F	Bagging bleu																			
Heure début laminage	8 h 45 min																			
Heure mise sous-vide (sac scellé)	9 h 45 min																			
Intensité du vide (25 inHg)	09																			
110	LAISSER POLYMÉRISER la pièce sous vide pendant 2h	#19 08 MAR. 2017 #23 08 MAR. 2017	#26 08 MAR. 2017	E: R:																
120	DÉMOULER et IDENTIFIER la pièce ☐ Brancher le système d'air comprimé ☐ Écrire le numéro de pièce et la date sur un collant – # de lot (date de début) – # de série ID Ex : (AAAAMMJJ) – (DAE001-XXX) ☐ Placer la pièce sur la table d'inspection	Annexe 1	#19 08 MAR.	E: R:																

130	Nettoyer le moule - Enlever la résine durcie tout le tour du moule avec une spatule en plastique pour ne pas endommager le moule <u>Si nécessaire</u>, nettoyer le moule avec un chiffon légèrement humecté de nettoyant à moule (PMC) - NE PAS TROP APPLIQUER DE "PMC"	Spatule en plastique	MP3-300 93-31-020 Inspecteur Qualité #23 0 MAR 2017 E: R:
-----	--	-----------------------------	---

USINAGE

150	<u>PERÇAGE ET DÉCOUPE CNC 5 axes :</u> Utiliser le gabarit d'usinage et le programme d'usinage à l'emplacement suivant : Z:\PROGRAMMES\Dart Aerospace\Dart Aerospace Rear Lockers\21-Dessins & Outillage\Outillage\usinage 5 axes	Annexe 1	#30 9 MAR 2017 E: R:
160	<u>SABLAGE :</u> - INSTALLER le Gabarit de finition et d'inspection GAB355 - SABLER la pièce jusqu'à arriver à la dimension du Gabarit GAB355 - ÉBAVURER les arêtes vives	GAB355 Annexe 1 MP3-300- 93-31-020	E: R:
170	Nettoyer les surfaces extérieures de la pièce	Annexe 1 MP3-300- 93-31-020	Inspecteur Qualité #19 13 MAR 2017 E: R:
180	SABLER légèrement l'extérieur de la pièce Papier 120 à 320 grains		#3 28 MAR 2017 E: R:
190	NETTOYER les surfaces extérieures		E: R:

FINITION

200	APPLIQUER le primer 2 couches d'environ 10 mils chacune	MPS-300-93-31-097	#3 MARS 28 MAR 2017	E: R:
210	<u>Protéger le gelcoat</u> Découper une pellicule de plastique protecteur bleu et la coller sur le rebord et à l'intérieur de la partie blanche (Gelcoat) (Voir Annexe 1)	Annexe 1	2 Mai 2017 JM	E: R:
220	<u>INSTALLER les attaches mécaniques (Camlocs) (Qte 4)</u> - Utiliser les pinces spécialisées (OUT951) pour insérer les Camlocs dans les trous - Utiliser l'outil spécialisé (OUT952) pour installer les rondelles de retenues	Annexe 1 Pince à Camloc (OUT951)	2 Mai 2017 JM	E: R:
			Inspecteur T-1 Qualité	

EXPÉDITION

240	Identifier, emballer et expédier Identification selon le document DART QSI044 à l'emplacement suivant : Z:\PROGRAMMES\Dart Aerospace\Dart Aerospace Rear Lockers\22-Gammes de Fabrication\In process	MPS-300-93-31-084	#8 15 JUN 2017	E: R:

Work Order ID 155137

Monday, January 09, 2017 11:28:59 AM

155137

Page 1

Item ID: D350-604-041

Accept

N900040100

Setup

Start

NS1

Revision ID: URF 16-567

Item Name: Rear Locker Extender

Stop

NS2

Start Date: 6/1/2017 Start Qty: 1.00

1

Cust Item ID:

Required Date: 7/3/2017 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: 21 Date: JAN 12 2017

Tooling:

Date:

Run

Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2273	<i>16R M 17/01/12</i>								
D350-604-041	<i>C U/A 17/1/13</i>								
100	Document Control	0.00							
100	DOCUMENT CONTROL								
DC	Memo	0.00							
Doc.Control -USB or Paperwork	Photocopy bluefile and create labels per PPP D350-604-041								
	<i>CHG 010 21 see attachment</i>								
110	PURCHASING	0.00							
110	Purchasing								
Purchasing	Memo	0.00							
	Issue P/O: <i>34973</i>								
	Description: D350-604-041 Rear locker extender.								
	Manufacture as per dwg D2273								
	Supplier: FDC Composites Inc.								
	Certification of Conformity and process sheet required.								

EXTREME CARE MUST BE TAKEN TO PROTECT THE SURFACES OF THE REAR LOCKER. THE SURFACES MUST BE SMOOTH AND FREE FROM SURFACE DEFECTS SUCH AS SCRATCHES, NICKS, OR DENTS.

MUST BE WELL PACKAGE, IF NOT IT WILL BE REFUSE

DAS
5
9-89

JUL 03 2017

JAN 17 2017



Department of Transport

Supplemental Type Certificate

This approval is issued to:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, Ontario
Canada K6A 1K7

Number: SH90-4

Issue No.: 4

Approval Date: January 31, 1990

Issue Date: February 17, 2012

Responsible Office:

Prairie and Northern

Aircraft/Engine Type or Model:

Eurocopter France AS 350 B, B1, B2, B3, BA, D
Eurocopter France AS 355 E, F, F1, F2, N, NP

Canadian Type Certificate or Equivalent:

H-83 (AS 350 Series); H-87 (AS 355 Series)

Description of Type Design Change:

Installation of Rear-Locker Extender

**Installation/Operating Data,
Required Equipment and Limitations:**

Installation of Rear-Locker Extender must be in accordance with Transport Canada Civil Aviation (TCCA) approved Dart Aerospace Ltd. Installation Drawing D350-604, revision C, dated December 6, 2011 or later TCCA approved revision.

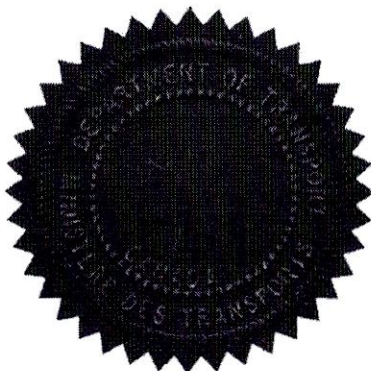
Operation of the Rear-Locker Extender must be in accordance with TCCA approved Dart Aerospace Ltd. Flight Manual Supplement FMS-D350-604, revision B, dated November 15, 2011, or later TCCA approved revision.

Maintenance of the Rear-Locker Extender must be in accordance with TCCA accepted Dart Aerospace Ltd. Instructions for Continued Airworthiness ICA-D350-604, revision 0, dated November 15, 2011, or later TCCA accepted revision.

Definition of Type Design Change: TCCA approved Dart Aerospace Ltd. Master Document List MDL-D350-604, revision A, dated February 2, 2012, or later TCCA approved revision.

Basis of Certification for affected areas: 14 CFR, Part 27 at amendment 27-21.

— End —



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated **will not** adversely affect the airworthiness of the modified product.

Greg Oucharek
For Minister of Transport

Canada